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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/682,237 | 10/09/2003 | Kyung-Hec Lee | 678-1208 (P10484) | 1019 |
| 28249 | 7590 | 10/28/2005 | EXAMINER | |
| DILWORTH & BARRESE, LLP 333 EARLE OVINGTON BLVD. UNIONDALE, NY 11553 | | | CAI, WAYNE HUU | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2681 | |
| DATE MAILED: 10/28/2005 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/682,237

Applicant(s)

LEE ET AL.

Examiner

Wayne Cai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11 and 20-29 is/are allowed.
- 6) ☒ Claim(s) 12-15, 30 and 31 is/are rejected.
- 7) ☒ Claim(s) 16-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>04/01/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 12-15, and 30-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Yatsukawa (US – 6,148,404).

Regarding claim 12, Yatsukawa discloses a method for performing authentication by a mobile node in a wireless local area network including at least two access points for setting up wireless association with the mobile node and an authentication server for authenticating the mobile node, the method comprising the steps of:

- when associating with a first access point and performing initial authentication, generating a first private key with a secret previously shared with the authentication server (col. 16, lines 56-61);
- generating first authentication information to be used during next authentication request, and transmitting a first enciphered message generated by enciphering the first authentication information with the first private key to the authentication server (col. 16, lines 61-67);
- upon receiving a second enciphered message from the authentication server in response to the first enciphered message, acquiring a first

- session key by deciphering the second enciphered message with the first private key (col. 17, lines 1-13);
- performing secure communication with the first access point by using the first session key (col. 17, lines 14-18).

Regarding claim 13, Yatsukawa discloses the method of claim 12 as described above. Yatsukawa also discloses wherein the first authentication information includes a temporary identifier of the mobile node, a password for generating a private key to be used during next authentication, and a random number (col. 16, lines 45-52; fig. 2, "A1").

Regarding claim 14, Yatsukawa discloses the method of claim 13 as described above. Yatsukawa also discloses wherein the first enciphered message includes a permanent identifier of the mobile node and the first authentication information (fig. 5, "authentication token").

Regarding claim 15, Yatsukawa discloses the method of claim 13 as described above. Yatsukawa also discloses wherein the second enciphered message includes the random number and the first session key (fig. 6, "C5" and its descriptions).

Regarding claim 30, Yatsukawa discloses a method of performing authentication of a mobile node by an access point with which the mobile node initially associates or re-associates due to handover, in a wireless local area network including the access point for setting up association with the mobile node and an authentication server for authenticating the mobile node, the method comprising the steps of (title, and abstract):

- when associating with the mobile node and performing authentication, receiving an enciphered message from the authentication server (col. 16, lines 53-67);
- acquiring a session key for secure communication with the mobile node by deciphering the enciphered message with a private key previously shared with the authentication server (col. 17, lines 1-13);
- performing secure communication with the mobile node by using the session key (col. 17, lines 14-18).

Regarding claim 31, Yatsukawa discloses the method of claim 30 as described above. Norefors also discloses wherein the enciphered message includes a temporary identifier generated by the mobile node during previous authentication, and a random number (figs. 3, 5 & 6; and its descriptions).

Allowable Subject Matter

3. Claims 1-11, and 20-29 are allowed.
4. The following is a statement of reasons for the indication of allowable subject matter: Although, Yatsukawa (US – 6,148,404) teaches or suggests an authentication method. Yatsukawa also discloses generating a session key, enciphering the session key. Norefors et al. (hereinafter “Norefors”) (US – 6,370,380 B1) teaches or suggests a method for secure handover (i.e., in a wireless local area network including at least two access points for setting up wireless association between the mobile node and an authentication server for authenticating the mobile node). Norefors teaches of

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transmitting a first message containing an encrypted security token and a hash code (i.e., a first private key). Then, in the mobile terminal, the encrypted security token is deciphered using an encryption key that is shared by the mobile terminal and the first access point (i.e., acquiring first authentication information to be used during next authentication by deciphering the first enciphered message with the first private key). The mobile terminal then re-encrypts, and transmits the security token using an encryption key that it shares with the second access point. The second access point then deciphers the re-encrypted security token using the encryption key that it shares with mobile terminal. Even more, Maste (US 2004/0088550 A1) teaches or suggests an access management system for managing access of wireless terminals to a wireless communication network. Maste also teaches authenticating and re-authenticating in a known wireless local area network (WLAN), wherein the access controller (AC) sends a signal to authentication server (AS) asking whether the PDA is registered. In response to the query, the AS determines whether the PDA is listed user and returns the answer including a master encryption key K_i (i.e., a first private key). However, none of the references found teaches or suggests each element, and limitation as details as claimed in the independent claims 1 and 20.

5. Claims 16-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Norefors et al. (US – 6,370,380 B1)

Ohba et al. (US 2004/0098588 A1)

Meier et al. (US 2004/0103282 A1)

Maste (US 2004/0088550 A1)


Zhang et al. (US 2002/0174335 A1)

Lor et al. (US 2004/0068668 A1)

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne Cai whose telephone number is (571) 272-7798. The examiner can normally be reached on Monday-Friday; 9:00-6:00; alternating Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Wayne Cai
Examiner
Art Unit 2681



ERIKA A. GARY
PRIMARY EXAMINER